

REMARKS

Please reconsider this application in view of the above amendments and the following remarks.

- Claims 16-21 and 23-37 are pending.
- Claims 16-21 and 23-35 are rejected.
- Claims 1-15 and 22 are canceled.

Applicant has previously telephoned and written the Examiner regarding applicant's request that the finality of the office action mailed on August 2, 2004 be removed. The Examiner has yet to respond to these requests. Therefore, applicant reiterates that request here. As previously communicated, the Examiner has introduced four new grounds of rejection (claims 16-17 and 19-20 are now rejected under 35 U.S.C. § 102(b) as being anticipated by Kawakami et al.; claims 21-29 are now rejected under 35 U.S.C. § 102(e) as being anticipated by Chu et al., claims 30-34 are now rejected as being obvious over Brodd in view of Stachoviak; claim 35 is now rejected as being obvious over Brodd in view of Chu). In view of the new grounds of rejection, it was not proper to issue a final office action. MPEP § 706.07(a). Applicant requests that the finality of this Office Action be expressly removed in the Examiner's next communication and that Applicant's fees for this Extension of Time and RCE be refunded.

I. Claim Amendments.

Applicant has amended claim 16 to specify those types of electrochemical cells in which anodes of the invention are useful. Specifically, applicant has added the phrase: "wherein the electrochemical cell comprises a cathode active material that includes one or more of the group consisting of: electroactive metal chalcogenides, electroactive conductive polymers, and electroactive sulfur-containing materials." Support for this amendment can be found in the specification as filed at page 5, lines 3-16. Additionally, applicant has amended claim 16 to recite that the anode active layer comprises "the reaction product of lithium metal co-deposited in situ with one or more gaseous materials." As shown below, at least page 26 of the specification as filed contemplates that the lithium metal and gaseous materials will react. Therefore, this amendment does not add new matter.

Applicant has amended claim 21 to incorporate the limitations of claim 22. Applicant has canceled claim 22. Claim 21, as amended, recites "an anode active layer comprising lithium metal and the reaction product of lithium with one or more gaseous materials."

Applicant has amended claim 29 so that it recites "sulfur in an elemental form." Support for this amendment can be found in the specification as filed at page 29, line 1.

Applicant has amended claim 30 so that it recites a step of "providing reactive gaseous material adjacent to the lithium deposition nozzle." Support for "reactive" can be found in specification as filed. Specifically, as shown below, at least page 26 of the specification as filed contemplates that the lithium metal and gaseous materials will react. Therefore, this amendment does not add new matter.

II. Claim Objections.

Applicant believes that the amendment to claim 29, discussed above, adequately addresses the Examiner's rejection of claim 29 under 37 CFR 1.75(c).

A. Non-Art-Based Rejections.

The Examiner has rejected claims 21 and 25 based on the Examiner's perception of a lack of support for these claims in the specification as filed. The Examiner has rejected claims 22-24 and claims 26-29 based on their dependency to claims 21 and 25, respectively.

The Examiner's attention is directed to the specification, as filed, page 26, lines 13-15, which is reproduced below:

The co-deposition process of lithium and carbon dioxide may produce a lithium layer with a surface layer comprising elemental carbon, oxide, and carbonate. The co-deposition process of lithium and carbon dioxide may produce a lithium layer in which elemental carbon, oxide and carbonate are intimately dispersed or the co-deposition process may produce both intimately dispersed elemental carbon, oxide, and carbonate and the surface layer comprising these components.

This section of the specification is discussing an "anode active layer." This disclosure in the specification reasonably conveys to one skilled in the art that the inventors had possession of the claimed invention at the time the application was filed. Applicant thus respectfully requests that this rejection under 35 USC §112 be removed. If not removed, Applicant requests that the Examiner set forth specific facts showing why the section of the specification cited by applicant above does not support these claims.

The Examiner has rejected claim 30 under 35 USC §112 because the Examiner believes that the disclosure does not provide support for "a moving substrate" or "nozzle."

The Examiner's attention is directed to example 3 of the specification as filed. Specifically, example 3 discloses "[that] a vacuum web coating system . . . having an unwind drive . . . load cell rollers for controlling tension, a rewind drive . . . and two deposition zones . . . was loaded with an anode substrate Lithium was deposited onto the substrate by first heating a thermal evaporation lithium source . . . and then starting the web drive at 0.5 feet per minute Immediately adjacent to the lithium source RF magnetron plasma treatment with the CO₂ gas was performed." Example 3 clearly and directly teaches a moving substrate to one of ordinary skill in the art. As far as the term "nozzle" goes, by nozzle applicant means an opening through which lithium passes during lithium deposition. All lithium evaporation sources inherently contain such an opening. Therefore, claim 30 is adequately supported by the specification, as filed. Applicant respectfully requests the Examiner to remove this rejection of claim 30 and those claims that depend from claim 30.

With respect to the claim interpretation section of the office action, Applicant has reviewed the section of the specification cited by the Examiner, i.e., page 3, lines 15-25, and finds no textual reason to limit an anode active layer to comprising two separate layers, one of lithium metal and one of lithium oxide. Indeed, applicant points to the section of the specification quoted on the preceding page, which specifically states that the oxide can be dispersed within the lithium metal layer. In view of this disclosure and explanation, the Examiner improperly limited the interpretation of claim 21, since claim 21 is not limited in the manner the Examiner suggests. For claim interpretation, estoppel or acquiescence purposes, Applicant treats the Examiner's narrow reading of claim 21 as traversed.

B. Art-Based Rejections.

The Examiner has rejected claims 16-17 and 19-20 under 35 USC §102(b) as being anticipated by Kawakami et al. U.S. Patent No. 5,824,434 (D1).

As amended, claim 16 recites "wherein the electrochemical cell comprises a cathode active material that includes one or more of the group consisting of electroactive metal chalcogenides, electroactive conductive polymers, and electroactive sulfur-containing materials." D1 does not teach this limitation. In order for anticipation to exist, the cited reference must teach each and every element of the claims under examination. Therefore, D1 does not anticipate claim 16, as amended. Claims 17 and 19-20 depend from claim 16, and therefore, contain all the limitations of claim 16. Thus, D1 does not teach each and every element of claims 17 and 19-20. Applicant thus respectfully submits that the rejection of claim 16-17 and 19-20 as being anticipated by D1 is traversed.

Applicant's amendment to claim 16 renders the specific discussion of D1 contained in the current office action moot, but applicant does not acquiesce to this discussion and reserves the right to specifically deal with the arguments contained in this discussion in the future should a duty to do so arise.

The Examiner has rejected claims 21-29 under 35 USC §102(e) as being anticipated by Chu, U.S. Patent No. 6,402,795 (D2).

As amended, applicant's claim 21 recites an anode active layer comprising lithium metal and the reaction product of lithium with one or more gaseous materials. D2 does not teach this limitation. Therefore, it is not a proper anticipatory reference to claim 21, as amended. The limitation of claim 21 not found in D2 is also present in claims 22-29 because they depend from claim 21. Therefore, D2 does not anticipate these dependent claims, either. Therefore, please remove this rejection of claims 21-29.

Applicant's amendment to claim 21 renders the specific discussion of D2 contained in the current office action moot, but applicant does not acquiesce to this discussion and reserves the right to specifically deal with the arguments contained in this discussion in the future should a duty to do so arise.

The Examiner has rejected claims 30-34 under 35 USC §103(a) using Brodd, U. S. Patent No. 5,522,955 (D3) as a base reference in view of U. S. Patent No. 6,117,593 (D4).

Claim 30, as amended, recites that its gaseous material is reactive. D3 specifies that the gaseous material (as identified by the Examiner) is nonreactive. See D3, column 7, lines 28-30. Therefore, D3 does not teach or make obvious each and every element of rejected claim 30, as amended. In fact, D3 specifically teaches away from the invention of claim 30, making D3 unsuitable as a reference. Moreover, D4 does not disclose this missing element (and even if it did, it could not be combined with D3 since it would be contrary to the teaching of D3 to include a reactive, rather than a nonreactive, gaseous material). Therefore, no case of prima facie obviousness for claim 30 (or claims that depend from claim 30) as amended has been established. Applicant thus respectfully requests that this rejection of claims 30-34 be removed.

Because there is currently no prima facie obviousness case for claims 30-34, applicant is under no duty to address others specifics of this rejection. But applicant does not acquiesce to the positions taken by the Examiner and reserves the right to specifically address such positions in the future should a duty to do so arise.

The Examiner has rejected claim 35 under 35 USC §103(a) as being unpatentable over D3 in view of D2.

Claim 35 depends from claim 30 and contains each and every element of claim 30. Therefore, claim 35 requires that its gaseous material be reactive. As discussed above, D3 does not teach this and further teaches away from this limitation. Therefore, a case of prima facie obviousness been established for claim 35. Applicant respectfully requests that this rejection be removed.

Because there is currently no prima facie obviousness for claim 35, applicant is under no duty to address other specifics of this rejection. But, applicant does not acquiesce to the position taken by the Examiner and reserves the right to specifically address such positions in the future should a duty to do so arise.

The Examiner has rejected claim 18 under 35 USC §103(a) based on D1 in view of other references.

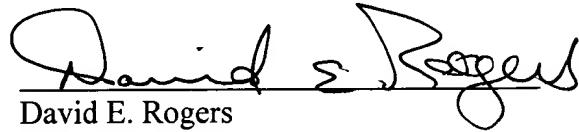
Claim 18 depends from claim 16 and, therefore, is patentable for at least the same reasons as claim 16. Therefore, this rejection is traversed. The amendments to claim 16 discussed above render this obviousness-based rejection of claim 18 moot. But applicant does not acquiesce to and reserves the right to specifically address the Examiner's arguments in the future should a duty to do so arise.

CONCLUSION

Since all the pending claims are in condition for allowance, a Notice of Allowability is respectfully requested. Applicant's representative would welcome a call at the number listed above if it would assist in the prosecution of this application.

Respectfully submitted,

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